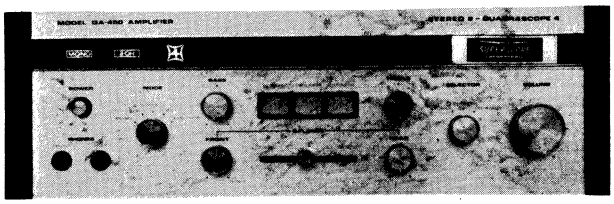
SUPERSCOPE®

STEREO AMPLIFIER

Model QA-450(e)

SERVICE DATA



— NOV. 1973 —

SUPERSCOPE INC.
8150 VINELAND AVENUE.
SUN VALLEY, CALIFORNIA 91352 U.S.A.

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TECHNICAL SPECIFICATIONS

Input Impedance - Low level input ..... Phono 47K
High level input 100K
Input Sensitivity - Phono 2.6mV
High level 150mV
Frequency Response ..... ±3.0dB, 20Hz to 100KHz at 1W output
Total Harmonic Distortion ..... Less than 1.0% rated power output
Rated continuous (RMS) Output
Per channel, all channels operating simultaneously ..... 25W x 2
10W x 4
Comparable Total Music Power (IHF)...64 watts at 8 ohms
Power Requirement ..... AC 110, 120, 220, 240V 50 to 60Hz
At rated output all channels operating ..... 90 watts

Dimensions
Width ..... 14 – 19/32"
Height ..... 4 – 13/16"
Depth ..... 11 – 5/16"
Weight ..... 18 lbs
Semi Conductors ..... 52 transistors, 16 diodes, 1 IC, 2 FET
Signal to Noise Ratio – Phono 60dB
Aux 75dB

* These specifications and exterior designs may be changed for improvement without advance notice.
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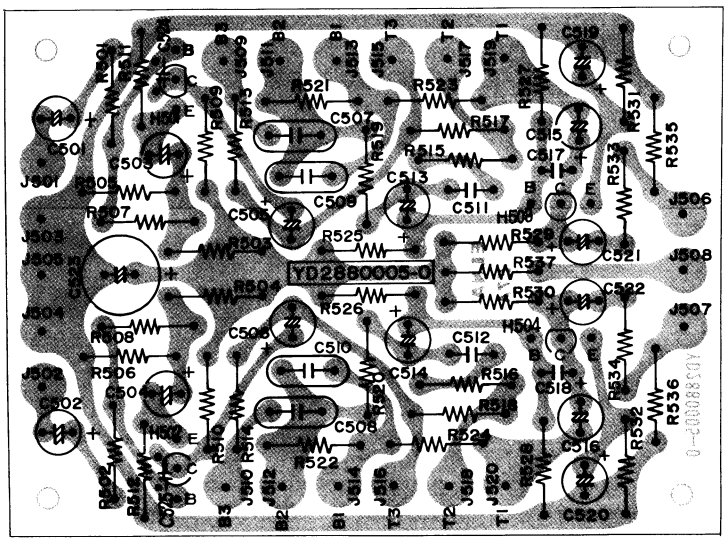
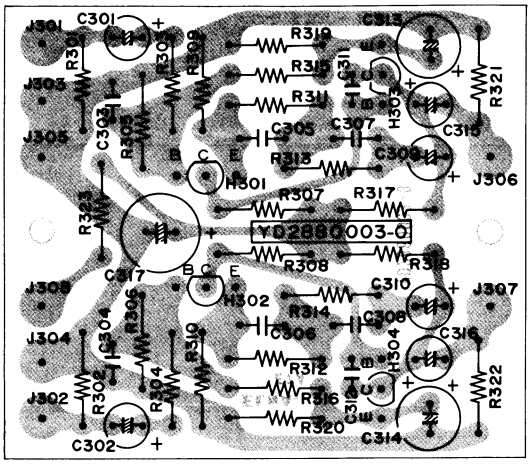
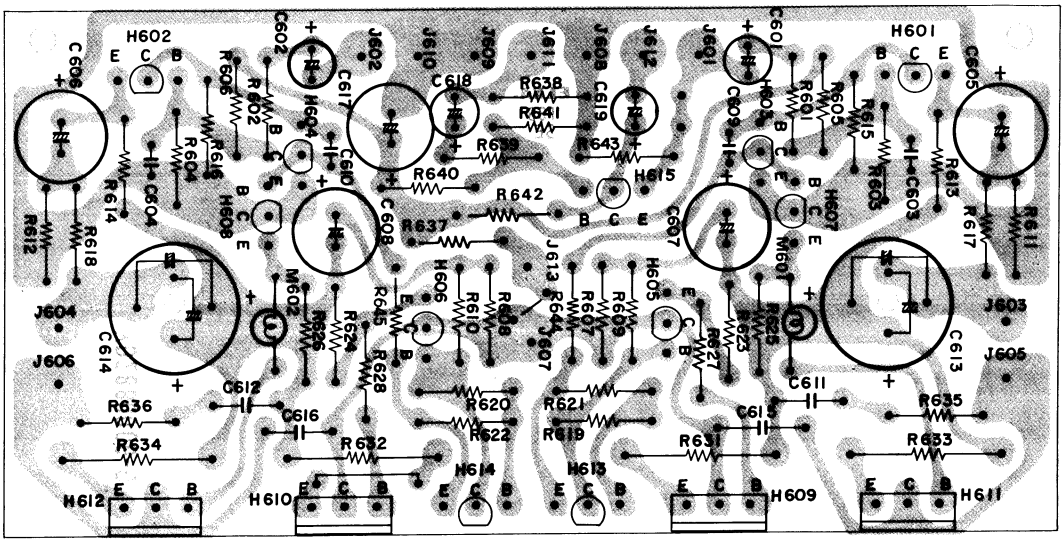
CIRCUIT BOARD DIAGRAM (TOP VIEW)



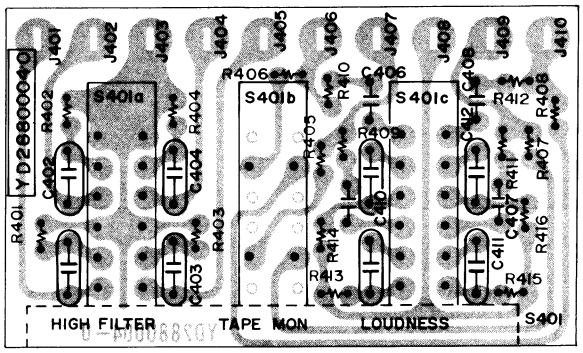
Tone Amp Block P500



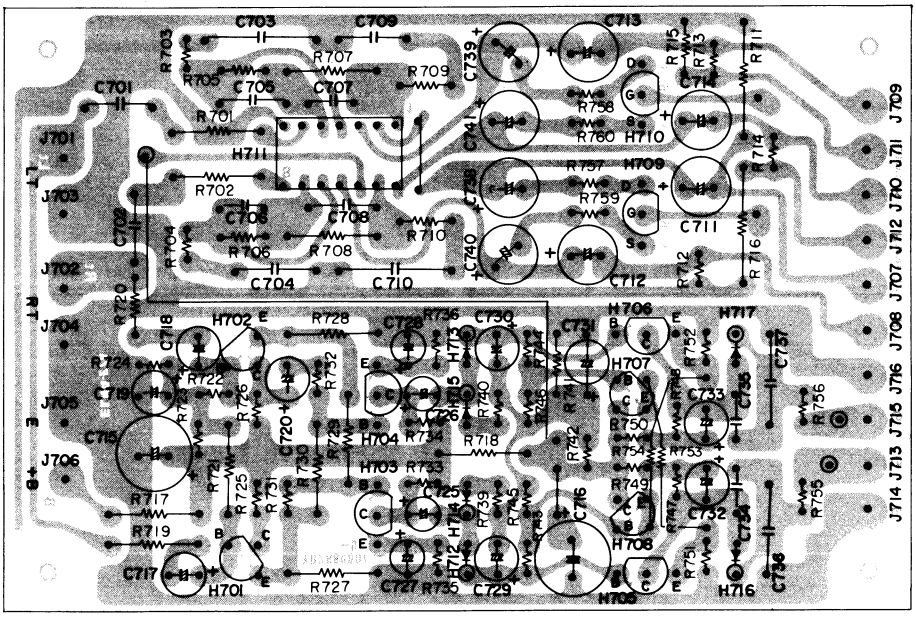
E, Q Amp BloCk P300



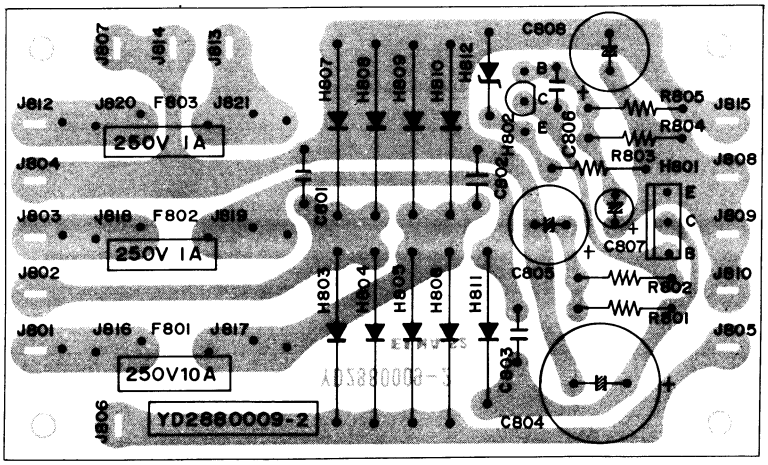
Main Amp Block P600



Switch Block P400
(High Filter. Tape Monitor and Loudness)

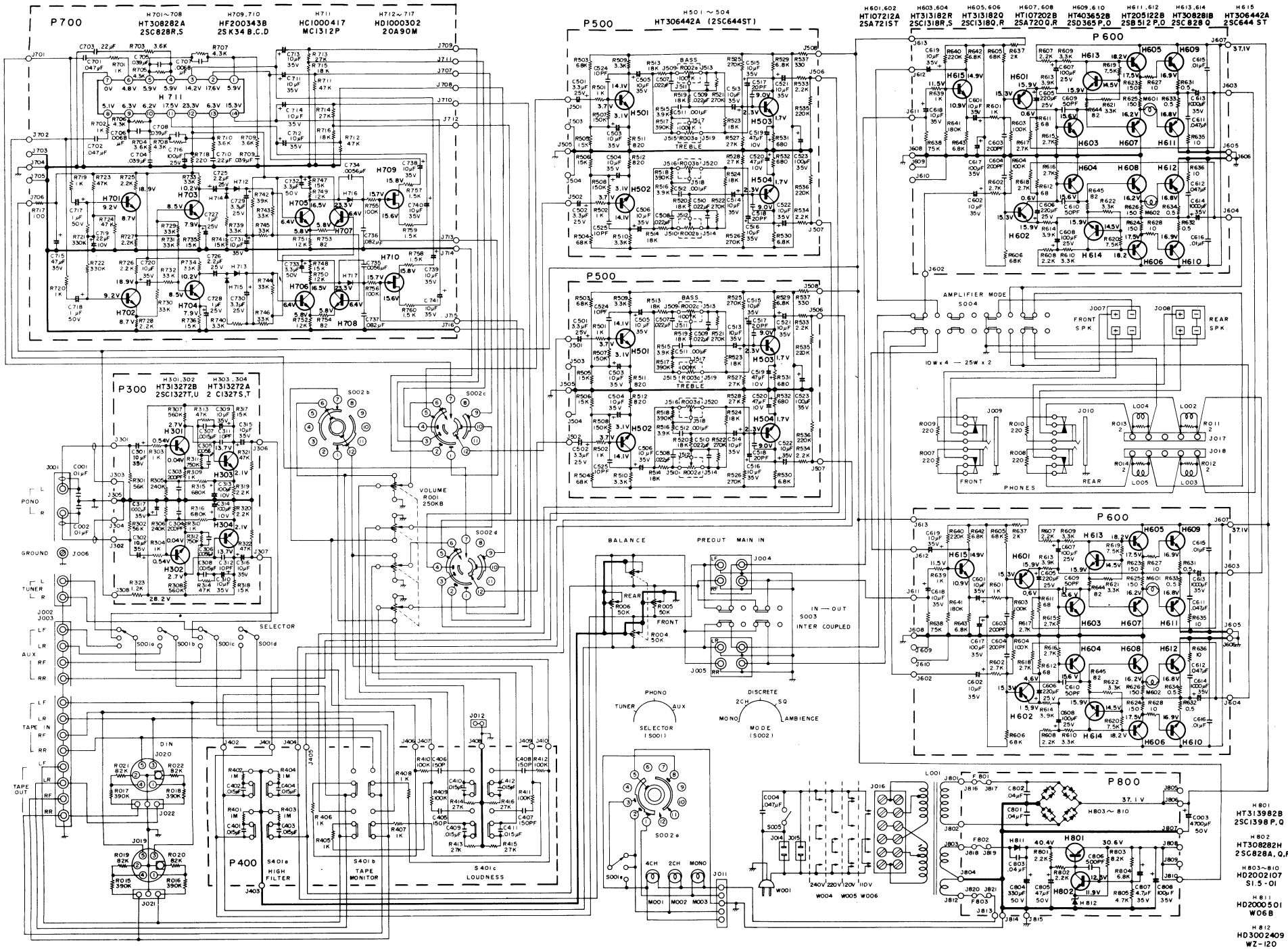


SQ Decorder Block P700

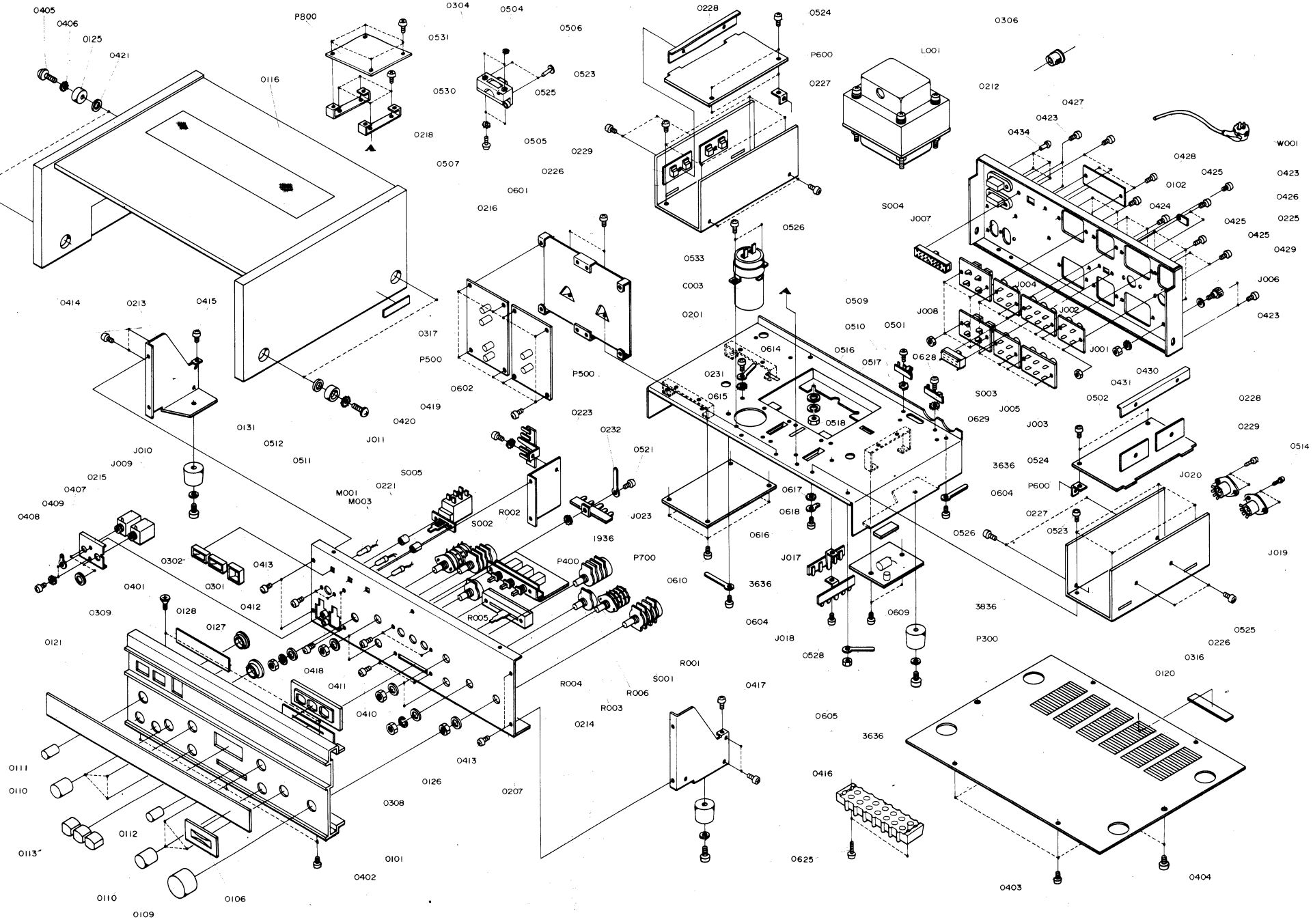


Power Source Block P800

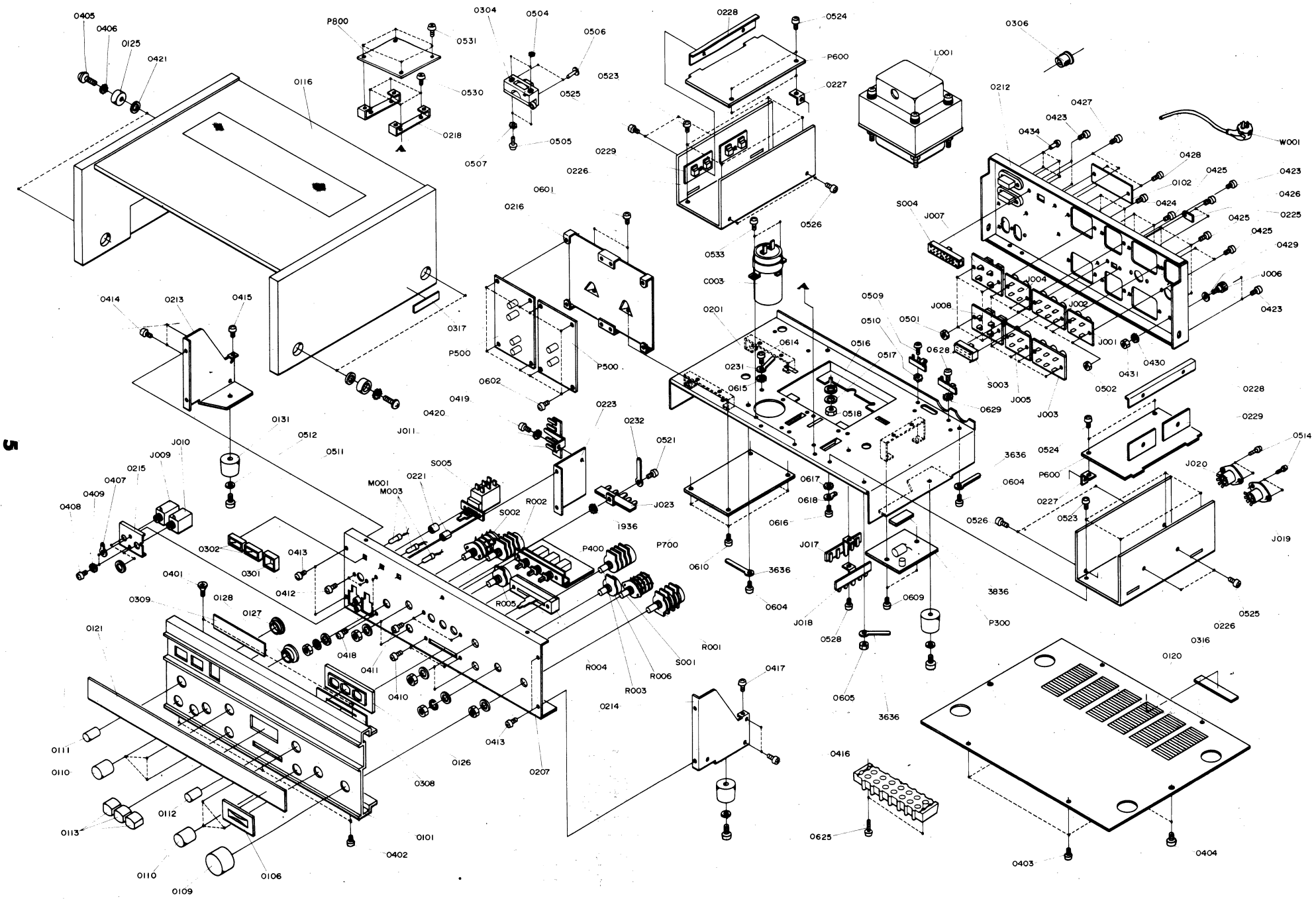
SCHEMATIC DIAGRAM



EXPLODED DIAGRAM OF THE MECHANISM



EXPLODED DIAGRAM OF THE MECHANISM



REF. DESIG.	PART NO.	DESCRIPTION
A	288016040	Bracket Assembly
0207	288016050	Bracket K
0301	288025901	Bush
0302	287225901	Bush x 2
B	288016042	Back Panel Assembly
0212	288016003	Bracket
0434	55060365S	T. R. Rivet x 4
J014	YJ0400018	Jack
J015	YJ0400018	Jack
C	288006340	Front Panel Assembly
0101	288006301	Escutcheon
0106	287625150	Badge K
0121	288015801	Window
0126	287225903	Bush
0127	281825905	Bush
0128	273125901	Bush x 2
0308	287210701	Sheet
0309	288005301	Cover
P300	YD2880003	P.W. Board, EQ Amp.
	ZZ2880003	P.W. Board Assembly
		RESISTORS
		All resistor are ± 5% and ¼W
R301	RT0556314	56KΩ
R302	RT0556314	56KΩ
R303	RT0510214	1KΩ
R304	RT0510214	1KΩ
R305	RN0524414	240KΩ
R306	RN0524414	240KΩ
R307	RN0556414	560KΩ
R308	RN0556414	560KΩ
R309	RT0510214	1KΩ
R310	RT0510214	1KΩ
R311	RT0575414	750KΩ
R312	RT0575414	750KΩ
R313	RT0547314	47KΩ
R314	RT0547314	47KΩ
R315	RN0568414	680KΩ
R316	RN0568414	680KΩ
R317	RT0515314	15KΩ
R318	RT0515314	15KΩ
R319	RT0522214	2.2KΩ
R320	RT0522214	2.2KΩ
R321	RT0547314	47KΩ
R322	RT0547314	47KΩ
R323	RT0512214	1.2KΩ
		CAPACITORS
C301	EE1060351	Electroly, 10μF 35V
C302	EE1060351	Electroly, 10μF 35V
C303	DD1620101	Ceramic, 200PF ±10%
C304	DD1620101	Ceramic, 200PF ±10%
C305	DF1556205	Film, 0.0056μF ±5%
C306	DF1556205	Film, 0.0056μF ±5%
C307	DF1515205	Film, 0.0015μF ±5%
C308	DF1515205	Film, 0.0015μF ±5%
C309	EA1060359	Electroly, 10μF 35V
C310	EA1060359	Electroly, 10μF 35V
C311	DD1610001	Ceramic, 10PF ±10%
C312	DD1610001	Ceramic, 10PF ±10%
C313	EA1070109	Electroly, 100μF 10V
C314	EA1070109	Electroly, 100μF 10V
C315	EA1060359	Electroly, 10μF 35V
C316	EA1060359	Electroly, 10μF 35V
C317	EA1080359	Electroly, 1000μF 35V
		TRANSISTORS
H301	HT313272B	2SC1327(T,U)
H302	HT313272B	2SC1327(T,U)
H303	HT313272A	2SC1327(S,T)
H304	HT313272A	2SC1327(S,T)

REF. DESIG.	PART NO.	DESCRIPTION
		MISCELLANEOUS
J301 ~ J308	YP1000113	Plug
P500	YD2880005	P.W. Board, TONE Amp. x 2
	ZZ2880005	P.W. Board Assembly x 2
		RESISTORS
		All resistor are ±5% and ¼W.
R501	RT0510214	1KΩ x 2
R502	RT0510214	1KΩ x 2
R503	RT0568314	68KΩ x 2
R504	RT0568314	68KΩ x 2
R505	RT0515314	15KΩ x 2
R506	RT0515314	15KΩ x 2
R507	RT0515414	150KΩ x 2
R508	RT0515414	150KΩ x 2
R509	RT0533214	3.3KΩ x 2
R510	RT0533214	3.3KΩ x 2
R511	RT0582114	820Ω x 2
R512	RT0582114	820Ω x 2
R513	RT0518314	18KΩ x 2
R514	RT0518314	18KΩ x 2
R515	RT0539214	3.9KΩ x 2
R516	RT0539214	3.9KΩ x 2
R517	RT0539414	390KΩ x 2
R518	RT0539414	390KΩ x 2
R519	RT0518314	18KΩ x 2
R520	RT0518314	18KΩ x 2
R521	RT0527414	270KΩ x 2
R522	RT0527414	270KΩ x 2
R523	RT0518314	18KΩ x 2
R524	RT0518314	18KΩ x 2
R525	RT0527414	270KΩ x 2
R526	RT0527414	270KΩ x 2
R527	RT0527314	27KΩ x 2
R528	RT0527314	27KΩ x 2
R529	RT0568214	6.8KΩ x 2
R530	RT0568214	6.8KΩ x 2
R531	RT0568114	680Ω x 2
R532	RT0568114	680Ω x 2
R533	RT0522214	2.2KΩ x 2
R534	RT0522214	2.2KΩ x 2
R535	RT0522414	220KΩ x 2
R536	RT0522414	220KΩ x 2
R537	RT0533114	330Ω x 2
		CAPACITORS
C501	EM3350252	Electroly, 3.3μF 25V x 2
C502	EM3350252	Electroly, 3.3μF 25V x 2
C503	EA1060359	Electroly, 10μF 35V x 2
C504	EA1060359	Electroly, 10μF 35V x 2
C505	EA1060359	Electroly, 10μF 35V x 2
C506	EA1060359	Electroly, 10μF 35V x 2
C507	DF1622305	Film, 0.022μF ±10% x 2
C508	DF1622305	Film, 0.022μF ±10% x 2
C509	DF1622305	Film, 0.022μF ±10% x 2
C510	DF1622305	Film, 0.022μF ±10% x 2
C511	DF1610205	Film, 0.001μF ±10% x 2
C512	DF1610205	Film, 0.001μF ±10% x 2
C513	EA1060359	Electroly, 10μF 35V x 2
C514	EA1060359	Electroly, 10μF 35V x 2
C515	EA1060359	Electroly, 10μF 35V x 2
C516	EA1060359	Electroly, 10μF 35V x 2
C517	DD1620001	Ceramic, 20PF ±10% x 2
C518	DD1620001	Ceramic, 20PF ±10% x 2
C519	EA4760109	Electroly, 47μF 10V x 2
C520	EA4760109	Electroly, 47μF 10V x 2
C521	EA1060359	Electroly, 10μF 35V x 2
C522	EA1060359	Electroly, 10μF 35V x 2
C523	EA1070359	Electroly, 100μF 35V x 2
C524	DD1610001	Ceramic, 10PF ±10% x 2
C525	DD1610001	Ceramic, 10PF ±10% x 2

REF. DESIG.	PART NO.	DESCRIPTION
		TRANSISTORS
H501	HT306442A	2SC644S,T x 2
H502	HT306442A	2SC644S,T x 2
H503	HT306442A	2SC644S,T x 2
H504	HT306442A	2SC644S,T x 2
		MISCELLANEOUS
J501 ~ J520	YP1000113	Plug x 2
0216	288016007	Bracket
0602	51100305A	B.H.M. Screw x 8
P600	YD2880010	P.W. Board, POWER Amp. SE
	ZZ2880010	P.W. Board Assembly x 2
		RESISTORS **All resistors are ± 5% and ¼W. unless otherwise indicated.**
R601	RT0510214	1KΩ x 2
R602	RT0527214	2.7KΩ x 2
R603	RT0510414	100KΩ x 2
R604	RT0510414	100KΩ x 2
R605	RT0568314	68KΩ x 2
R606	RT0568314	68KΩ x 2
R607	RT0522214	2.2KΩ x 2
R608	RT0522214	2.2KΩ x 2
R609	RT0533214	3.3KΩ x 2,
R610	RT0533214	3.3KΩ x 2
R611	RT0568014	68Ω x 2
R612	RT0568014	68Ω x 2
R613	RT0539214	3.9KΩ x 2
R614	RT0539214	3.9KΩ x 2
R615	RT0527214	2.7KΩ x 2
R616	RT0527214	2.7KΩ x 2
R617	RT0527214	2.7KΩ x 2
R618	RT0527214	2.7KΩ x 2
R619	RT0575214	7.5KΩ x 2
R620	RT0575214	7.5KΩ x 2
R621	RT0533214	3.3KΩ x 2
R622	RT0533214	3.3KΩ x 2
R623	GF0515112	150Ω ±5% ½W x 2
R624	GF0515112	150Ω ±5% ½W x 2
R625	GF0515112	150Ω ±5% ½W x 2
R626	GF0515112	150Ω ±5% ½W x 2
R627	GF0510014	10Ω x 2
R628	GF0510014	10Ω x 2
R631	RW1000503	0.5Ω ±10% 3W x 2
R632	RW1000503	0.5Ω ±10% 3W x 2
R633	RW1000503	0.5Ω ±10% 3W x 2
R634	RW1000503	0.5Ω ±10% 3W x 2
R635	RC1010012	10Ω ±10% ½W x 2
R636	RC1010012	10Ω ±10% ½W x 2
R637	RT0520214	2.0KΩ x 2
R638	RT0575314	75KΩ x 2
R639	RT0510214	1KΩ x 2
R640	RT0522414	220KΩ x 2
R641	RT0518414	180KΩ x 2
R642	RT0568214	6.8KΩ x 2
R643	RT0568214	6.8KΩ x 2
R644	RT0582014	82Ω x 2
R645	RT0582014	82Ω x 2
		CAPACITORS
C601	EA1060359	Electroly, 10μF 35V x 2
C602	EA1060359	Electroly, 10μF 35V x 2
C603	DD1620101	Ceramic, 200P ±10% x 2
C604	DD1620101	Ceramic, 200P ±10% x 2
C605	EA2270259	Electroly, 220μF 25V x 2
C606	EA2270259	Electroly, 220μF 25V x 2
C607	EA1070259	Electroly, 100μF 25V x 2
C608	EA1070259	Electroly, 100μF 25V x 2

REF. DESIG.	PART NO.	DESCRIPTION
C609	DD1650001	Ceramic, 50PF ±10% x 2
C610	DD1650001	Ceramic, 50PF ±10% x 2
C611	DF1747305	Film, 0.047μF ±20% x 2
C612	DF1747305	Film, 0.047μF ±20% x 2
C613	EA1080359	Electroly, 1000μF 35V x 2
C614	EA1080359	Electroly, 1000μF 35V x 2
C615	DK1710301	Ceramic, 0.01μF ±20% x 2
C616	DK1710301	Ceramic, 0.01μF ±20% x 2
C617	EA1070359	Electroly, 100μF 35V x 2
C618	EA1060359	Electroly, 10μF 35V x 2
C619	EA1060359	Electroly, 10μF 35V x 2
		TRANSISTORS
H601	HT107212A	2SA721 S,T x 2
H602	HT107212A	2SA721 S,T x 2
H603	HT313182R	2SC1318R,S x 2
H604	HT313182R	2SC1318R,S x 2
H605	HT313182Q	2SC1318Q,R x 2
H606	HT313182Q	2SC1318Q,R x 2
H607	HT107202B	2SA720Q,R x 2
H608	HT107202B	2SA720Q,R x 2
H609	HT403652B	2SD365P,O x 2
H610	HT403652B	2SD365P,O x 2
H611	HT205122B	2SB512P,O x 2
H612	HT205122B	2SB512P,O x 2
H613	HT308281B	2SC828Q x 2
H614	HT308281B	2SC828Q x 2
H615	HT306442A	2SC644 S,T x 2
		MISCELLANEOUS
J602 ~ J613	YP1000113	Plug x 2
M601	IN1008033	Lamp, 8V 60mA x 2
M602	IN1008033	Lamp, 8V 60mA x 2
0226	287426701	Heat Sink x 2
0227	287416002	Bracket x 4
0228	287400501	Clamper x 2
0229	287411801	Spacer x 4
0524	51100305A	B.H.M. Screw x 4
0525	51100312A	B.H.M. Screw x 4
0526	51100306A	B.H.M. Screw x 4
P700	YD2880007	P.W.Board, SQ Decorder
	ZZ2880007	P.W. Board Assembly
		RESISTORS **All resistors are ±5% and ¼W.**
R701	RT0510214	1KΩ
R702	RT0510214	1KΩ
R703	RT0536214	3.6KΩ
R704	RT0536214	3.6KΩ
R705	RT0543214	4.3KΩ
R706	RT0543214	4.3KΩ
R707	RT0543214	4.3KΩ
R708	RT0543214	4.3KΩ
R709	RT0536214	3.6KΩ
R710	RT0536214	3.6KΩ
R711	RT0547314	47KΩ
R712	RT0547314	47KΩ
R713	RT0527314	27KΩ
R714	RT0527314	27KΩ
R715	RT0518314	18KΩ
R716	RT0518314	18KΩ
R717	RT0510114	100Ω
R718	RT0522114	220Ω
R719	RT0510214	1KΩ
R720	RT0510214	1KΩ
R721	RT0533414	330KΩ
R722	RT0533414	330KΩ

REF. DESIG.	PART NO.	DESCRIPTION
R723	RT0547314	47KΩ
R724	RT0547314	47KΩ
R725	RT0522214	2.2KΩ
R726	RT0522214	2.2KΩ
R727	RT0522214	2.2KΩ
R728	RT0522214	2.2KΩ
R729	RT0533314	33KΩ
R730	RT0533314	33KΩ
R731	RT0533314	33KΩ
R732	RT0533314	33KΩ
R733	RT0533314	33KΩ
R734	RT0533314	33KΩ
R735	RT0515314	15KΩ
R736	RT0515314	15KΩ
R739	RT0533214	3.3KΩ
R740	RT0533214	3.3KΩ
R741	RT0515314	15KΩ
R742	RT0539314	39KΩ
R743	RT0533314	33KΩ
R744	RT0533314	33KΩ
R745	RT0533314	33KΩ
R746	RT0533314	33KΩ
R747	RT0515314	15KΩ
R748	RT0515314	15KΩ
R749	RT0512314	12KΩ
R750	RT0512314	12KΩ
R751	RT0512314	12KΩ
R752	RT0512314	12KΩ
R753	RT0582014	82Ω
R754	RT0582014	82Ω
R755	RT0510414	100KΩ
R756	RT0510414	100KΩ
R757	RT0515214	1.5KΩ
R758	RT0515214	1.5KΩ
R759	RT0515214	1.5KΩ
R760	RT0515214	1.5KΩ
		CAPACITORS
C701	DF1747305	Film, 0.047μF ±20%
C702	DF1747305	Film, 0.047μF ±20%
C703	DF1522405	Film, 0.22μF ±5%
C704	DF1539305	Film, 0.039μF ±5%
C705	DF1539305	Film, 0.039μF ±5%
C706	DF1568205	Film, 0.0068μF ±5%
C707	DF1568205	Film, 0.0068μF ±5%
C708	DF1539305	Film, 0.039μF ±5%
C709	DF1539305	Film, 0.039μF ±5%
C710	DF1522405	Film, 0.22μF ±5%
C711	EE1060351	Electroly, 10μF 35V
C712	EE1060351	Electroly, 10μF 35V
C713	EE1060351	Electroly, 10μF 35V
C714	EE1060351	Electroly, 10μF 35V
C715	EA4760359	Electroly, 47μF 35V
C716	EA1070259	Electroly, 100μF 25V
C717	EA1050509	Electroly, 1μF 50V
C718	EA1050509	Electroly, 1μF 50V
C719	EA2260109	Electroly, 22μF 10V
C720	EA1060359	Electroly, 10μF 35V
C725	EM2250251	Electroly, 2.2μF 25V
C726	EM2250251	Electroly, 2.2μF 25V
C727	EM1050251	Electroly, 1μF 25V
C728	EM1050251	Electroly, 1μF 25V
C729	EA3350509	Electroly, 3.3μF 50V
C730	EA3350509	Electroly, 3.3μF 50V
C731	EA1060359	Electroly, 10μF 35V
C732	EA3350509	Electroly, 3.3μF 50V
C733	EA3350509	Electroly, 3.3μF 50V
C734	DF1656205	Film, 0.0056μF ±10%
C735	DF1656205	Film, 0.0056μF ±10%
C736	DF1682305	Film, 0.082μF ±10%
C737	DF1682305	Film, 0.082μF ±10%
C738	EE1060351	Electroly, 10μF 35V
C739	EE1060351	Electroly, 10μF 35V
C740	EE1060351	Electroly, 10μF 35V
C741	EE1060351	Electroly, 10μF 35V

REF. DESIG.	PART NO.	DESCRIPTION
		SEMICONDUCTORS
H701	HT308282A	Transistor, 2SC828R,S
H702	HT308282A	Transistor, 2SC828R,S
H703	HT308282A	Transistor, 2SC828R,S
H704	HT308282A	Transistor, 2SC828R,S
H705	HT308282A	Transistor, 2SC828R,S
H706	HT308282A	Transistor, 2SC828R,S
H707	HT308282A	Transistor, 2SC828R,S
H708	HT308282A	Transistor, 2SC828R,S
H709	HF200301C	F.E.T., 2SK30(Y)
H710	HF200301C	F.E.T., 2SK30(Y)
H711	HC1000417	I.C., MC1312P
H712	HD1000302	Diode, 20A90M
H713	HD1000302	Diode, 20A90M
H714	HD1000302	Diode, 20A90M
H715	HD1000302	Diode, 20A90M
H716	HD1000302	Diode, 20A90M
H717	HD1000302	Diode, 20A90M
		MISCELLANEOUS
J701 ~ J716	YP1000113	Plug
P800	YD2880009	P.W. Board
	ZZ2880009	P.W. Board Assembly
		RESISTORS
		All resistors are ±5% and ¼W.
R801	RT0522214	2.2KΩ
R802	RT0522214	2.2KΩ
R803	RT0582214	8.2KΩ
R804	RT0568214	6.8KΩ
R805	RT0547214	4.7KΩ
		CAPACITORS
C801	DK1840301	Ceramic, 0.04μF +100%
C802	DK1840301	Ceramic, 0.04μF +100%
C803	DK1840301	Ceramic, 0.04μF +100%
C804	EA3370509	Electroly, 330μF 50V
C805	EA4760509	Electroly, 47μF 50V
C806	DD1650101	Ceramic, 500PF ±10%
C807	EA4750359	Electroly, 4.7μF 35V
C808	EA1070359	Electroly, 100μF 35V
		SEMI CONDUCTORS
H801	HT313982B	Transistor, 2SC1398P,Q
H802	HT308282H	Transistor, 2SC828AQ,R
H803	HD2002107	Diode, S1.5-01
H804	HD2002107	Diode, S1.5-01
H805	HD2002107	Diode, S1.5-01
H806	HD2002107	Diode, S1.5-01
H807	HD2002107	Diode, S1.5-01
H808	HD2002107	Diode, S1.5-01
H809	HD2002107	Diode, S1.5-01
H810	HD2002107	Diode, S1.5-01
H811	HD2000501	Diode, W06B
H812	HD3002409	Diode, WZ-12C
		MISCELLANEOUS
J801 ~ J810	YP1000099	Plug
J812	YP1000099	Plug,
J813	YP1000099	Plug,
J814	YP1000099	Plug,
J815	YP1000099	Plug,
J816	YJ0800020	Socket, for Fuse
J817	YJ0800020	Socket, for Fuse
J818	YJ0800020	Socket, for Fuse
J819	YJ0800020	Socket, for Fuse
J820	YJ0800020	Socket, for Fuse
J821	YJ0800020	Socket, for Fuse

REF. DESIG.	PART NO.	DESCRIPTION
0213	288016004	Bracket
0214	288016005	Bracket
0215	288016006	Bracket,
0221	380205501	Collar, Power SW x 2
0407	62031650W	Lug, Jack
0408	51100305A	B.H.M. Screw, Jack x 2
0409	54050300R	T.L. Washer OR, Jack x 2
0410	51100305A	B.H.M. Screw, Slidevol x 2
0411	51100305A	B.H.M. Screw, Push-SW x 2
0412	51100310A	B.H.M. Screw, Power-SW x 2
0413	51100305A	B.H.M. Screw, Front Bracket x 4
1936	54050300R	T.L. Washer OR
0418	51100305A	B.H.M. Screw, Front Bracket + Shield x 2
0521	51570306B	P. Tapt Screw,
R001	RG0254002	Variable Resistor 250K (B)X4VR
J009	YJ0100069	Jack, Phone (Front)
J010	YJ0100069	Jack, Phone (Rear)
R007	RC1022112	Resistor, 220Ω ±10% ½W
R008	RC1022112	Resistor, 220Ω ±10% ½W
R009	RC1022112	Resistor, 220Ω ±10% ½W
R010	RC1022112	Resistor, 220Ω ±10% ½W
S005	SP0201011	Push Switch, Power
C004	DF1747380	Film Cap. 0.047μF ±20%
0223	288010901	Shield, Front
0419	51100305A	B.H.M. Screw,
0420	54050300R	T.L. Washer OR
J011	YL0105001	Terminal,
M001	IN1008030	Lamp, 4CH, Ind.
M002	IN1008030	Lamp, 2CH, Ind.
M003	IN1008030	Lamp, Mono, Ind.
S002	SR1405001	Rotary Switch, Mode
R002	RG0104002	Variable Resistor, 100KΩ(B)X4 Bass
R003	RG0104002	Variable Resistor, 100KΩ(B)X4 Treble
P400	YD2880004	P.W. Board, Switch
	ZZ2880004	P.W. Board Assembly
		RESISTORS
		All resistors are ±5% and ¼W
R401	RT0510514	1MΩ
R402	RT0510514	1MΩ
R403	RT0510514	1MΩ
R404	RT0510514	1MΩ
R405	RT0510214	1KΩ
R406	RT0510214	1KΩ
R407	RT0510214	1KΩ
R408	RT0510214	1KΩ
R409	RT0510414	100KΩ
R410	RT0510414	100KΩ
R411	RT0510414	100KΩ
R412	RT0510414	100KΩ
R413	RT0527314	27KΩ
R414	RT0527314	27KΩ
R415	RT0527314	27KΩ
R416	RT0527314	27KΩ
		CAPACITORS
		All capacitors are ±10%
C401	DF1615305	Film, 0.015μF
C402	DF1615305	Film, 0.015μF
C403	DF1615305	Film, 0.015μF
C404	DF1615305	Film, 0.015μF
C405	DD1615101	Ceramic, 150PF
C406	DD1615101	Ceramic, 150PF
C407	DD1615101	Ceramic, 150PF

REF. DESIG.	PART NO.	DESCRIPTION
C408	DD1615101	Ceramic, 150PF
C409	DF1615305	Film, 0.015μF
C410	DF1615305	Film, 0.015μF
C411	DF1615305	Film, 0.015μF
C412	DF1615305	Film, 0.015μF
		MISCELLANEOUS
S401	SP0403006	Push Switch, High Filter Tape Mon Loudness
J401 ~ J410	YP1000099	Plug
R004	RS0503018	Variable Resistor, 50KΩ Balance
R005	RK0503008	Variable Resistor, 50K(3BM)X2 Balance
R006	RK0503008	Variable Resistor, 50KΩ(3BM)X2 Balance
S001	SR0803012	Rotary Switch, Selector
J023	YL0105001	Terminal
0232	138200503	Clamper
0304	282125901	Bush
0306	284906702	Cap
0424	51100308S	B.H.M. Screw, x 4
0425	51100308S	B.H.M. Screw, RCA, Pin x 10
0426	51100304S	B.H.M. Screw, Inter Coupled x 2
0427	51100304S	B.H.M. Screw, Amplifier Mode x 2
0429	54020401E	Flat Washer P, Ground
0430	54050400R	T.L. Washer OR, Ground
0431	53110403A	Hexagon Nut, Ground
0504	53110303A	Hexagon Nut x2
0505	51060316A	P.H.M Screw x 2
0506	55060305S	TR Rivet x 2
0507	54050300R	TL Washer OR x 2
0514	51570306B	P TAPT Screw x 4
0501	53110303A	Hexagon Nut, x 4
0502	53110303A	Hexagon Nut, RCA Pin x 10
J002	YT0206003	Terminal, Aux. Tape in out
J003	YT0206003	Terminal, Aux. Tape in out
J006	YL0301021	Terminal, Ground Terminal
J007	YT0304004	Terminal, SPK Terminal
J008	YT0304004	Terminal, SPK Terminal
W001	YC0190003	AC Cord
J019	YJ 1100001	Socket Din Front
J020	YJ 1100001	Socket Din Rear
R015	RT0539414	390kΩ 5% ¼W
R016	RT0539414	390kΩ 5% ¼W
R017	RT0539414	390kΩ 5% ¼W
R018	RT0539414	390kΩ 5% ¼W
R190	RT0582314	82kΩ 5% ¼W
R020	RT0582314	82kΩ 5% ¼W
R021	RT0582314	82kΩ 5% ¼W
R022	RT0582314	82kΩ 5% ¼W
J021	YL0103021	Terminal
J022	YL0103021	
S004	SS0802008	Slide Switch, Amplifier Mode
S003	SS0402022	Slide Switch, Inter Coupled
J004	YT0204003	Terminal, Pre Main
J005	YT0204003	Terminal, Pre Main
J001	YT0204003	Terminal, Phono Tuner
C001	DK1810301	Ceramic Cap, 0.01μF +100%
C002	DK1810301	Ceramic Cap, 0.01μF +100%
0630	62031650W	Lug,
J017	YL0105011	Terminal,
J018	YL0105011	Terminal,

REF. DESIG.	PART NO.	DESCRIPTION
L002	LC2272001	Choke Coil
L003	LC2272001	Choke Coil
L004	LC2272001	Choke Coil
L005	LC2272001	Choke Coil
R011	RC1002012	Resistor, 2Ω 10% ½W
R012	RC1002012	Resistor, 2Ω 10% ½W
R013	RC1002012	Resistor, 2Ω 10% ½W
R014	RC1002012	Resistor, 2Ω 10% ½W
3636	138200503	Clamper
W004 ~ W006	YB0007001	Wire Material
W002	YW2880002	Wire Material
W009	YW2880102	Wire Material
W008	YX2880101	Wire Material
0131	287205701	Leg x 4
0201	288010550	Chassis K
0218	286716001	Bracket,
0231	282100501	Clamper
3836	288005601	Buffer,
0414	51100305A	B.H.M. Screw x 2
0415	51570305B	P Tapt Screw
0416	51100305A	B.H.M. Screw x 2
0417	51570305B	P Tapt Screw
0423	51100305S	B.H.M. Screw x 5
0509	51570306B	P TAPT Screw x 2
0510	54050300R	TL Washer OR
0511	51060418A	P.H.M. Screw x 4
0512	54040402A	Spring Washer x 4
0516	54020401A	Flat Washer P, x 8
0517	54040402A	Spring Washer x 4
0518	53110403A	Hexagon Nut x 4
0523	51570308B	P Tapt Screw x 8
0528	51570306B	P Tapt Screw
0530	51570305B	P Tapt Screw x 4
0531	51100305A	B.H.M. Screw x 4
0533	51570306B	P Tapt Screw x 2
0604	51570306B	P Tapt Screw x 2
0601	51570305B	P Tapt Screw x 2
0605	53110303A	Hexagon Nut
0609	51100305A	B.H.M. Screw x 2
0610	51100305A	B.H.M. Screw x 4
0614	51570406B	P Tapt Screw
0615	54050400R	T.L. Washer OR
0616	51570306B	P Tapt Screw
0617	54050300R	T.L. Washer OR
0618	62031650W	Lug
0625	51570312B	P TAPT Screw x 2
0628	51570306B	P Tapt Screw,
0629	54050300R	T.L. Washer OR,
F801	FS1100002	Fuse, 10A
F802	FS1010003	Fuse, 1A
F803	FS1010003	Fuse, 1A
C003	EC4780504	Electroly Cap, 4700μF 50V
L001	TS1960207	Power Transf,
0103	288026502	Indicator
0109	287615402	Knob, Volume
0110	287615406	Knob, Selector, Treble, Bass Balance Mode x 6

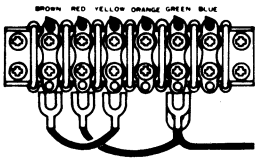
REF. DESIG.	PART NO.	DESCRIPTION
0111	287615407	Knob, Power
0112	287615410	Knob, Slide Vol.
0113	287227001	Button x 3
0116	287206450	Case K
0120	287225701	Lid
0125	287225902	Bush x 4
0225	287211401	Stoper, Inter Coupled
0316	257886101	Label, Caution
0317	287286102	Label
0401	51040305A	F.H.M. Screw x 2
0402	51100305A	B.H.M. Screw x 3
0403	51100305S	B.H.M. Screw x 4
0404	51100405S	B.H.M. Screw x 2
0405	51120418S	T.H.M. Screw x 4
0406	54050400R	T.L. Washer OR x 4
0421	54020601A	Flat Washer P x 4
0428	51100305S	B.H.M. Screw x 2
0711	952301511	Serial No. Card
0702	288085121	Instructions
0703	282885108	Instructions
0706	288085603	Schematic
0713	901383033	Polyethy Bag, For Set.
0714	901183001	Polyethy Bag, For Printing
0716	956000004	Hang Tap
0719	286480401	Sleeve
0721	273182101	Silicagel
0723	288080101	Packing Case
0724	288080102	Packing Case
0725	287280301	Partitioner x 2
0726	287280701	Reinforcement x 2

VOLTAGE CONVERSION

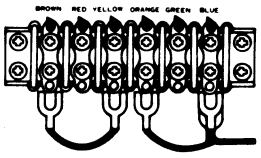
This model is equipped with a universal power transformer to permit operation at 110, 120, 220, 240 Volts AC 50/60 Hz.

To convert the unit to the required voltage, change the jumper wires as illustrated .

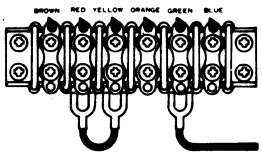
CAUTION: DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE.



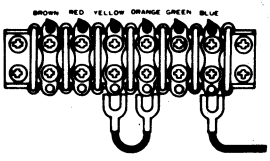
For 110V Operation



For 120V Operation



For 220V Operation



For 240V Operation

Voltage Conversion Chart